

## ABSTRACT OF THE INVENTION

Apparatus for managing packet flow in network routers is provided which communicates the congestion status among the ports inside routers in the network, and substantially eliminates packet dropping due to congestion by providing overflow paths for destination IP addresses. Each router in a network stores at least two possible output paths for selected destination IP addresses, so that the router may direct the output of packets appropriately when congestion is detected on one of the paths. A forwarding table stores the possible output paths for each destination IP address.